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THE GENESEE FARMER.

SATURDAY, AUGUST 6, 1836.

Culture of Strawberries.

As the time is now approaching, when those who intend to form beds for raising this cheap and delicious fruit, should make the necessary preparations, a few brief instructions on the subject may not be unacceptable.

Varieties.—The following are a few of those which rank among the best and most desirable varieties. Austrian Scarlet, or Duke of Kent; Grove End Scarlet; Roseberry; Keen's Seedling; Methven; Old Pine; Red and White Alpine; Bush Alpine. The Austrian Scarlet is the earliest of known varieties, and is also of excellent flavor. The red and white Alpine possess the advantage of ripening, when properly managed, through autumn till winter; we have seen a dish of good fruit, picked on the first day of December. The bush Alpine possesses the same advantage, and the additional one of not spreading by runners; it is not, however, a first rate bearer, nor is the fruit of the very best quality.

Propagation.—With the exception of the bush Alpine, which is only increased by divisions of the root, all the varieties multiply spontaneously every season, by numerous runners from the parent plant, which, rooting and forming a plant at every joint, only require, for the production of fruit in abundance, removal to a bed where they may have room to flourish. Such plants will bear the summer succeeding the planting, and in the second year will be in full perfection. The best way is to supply a new plantation, with plants which have been taken from runners and set out in nursery beds the previous season. But where such cannot be had, those of the present season will answer.

Soil and situation.—Strawberries will grow and produce fruit on almost any soil of moderate fertility; but they are most productive on a deep rich loam. They should be in an open situation, exposed to the sun and air, and not under trees. The Alpine strawberries however, admit of being placed in a more shady situation, as it is during the hot and dry season of the year that they are intended for bearing; which they will not do if allowed to suffer from drouth; and few are willing to take the pains to water them as much as they would require.

Transplanting.—The best time for doing this is in the spring; but if performed with proper care, they succeed nearly if not quite as well when transplanted early in autumn, say in the early part of September. The ground should be well manured and dug a month before transplanting. The chief care required when the work is done in autumn, is to guard against the plants being thrown out by frost, which is best effected by treading the soil closely about the roots.

Culture.—The distance of the plants asunder, where the soil is rendered *sufficiently fertile*, should be, for the larger varieties (such as Methven and Keen's seedling,) twenty inches from row to row and fifteen inches in the row; the smaller varieties may be a little nearer together. This distance may seem too great, but it is much better than crowding the plants too closely, which is the more common error. It is only by affording sufficient room for the plants to receive the benefit of sun, air, and of culture, that the fruit will ripen early, and acquire a good size and agreeable flavor. Keen, of Isleworth in England, a most successful cultivator of this fruit, and who raised the celebrated Keen's seedling, says, in speaking of the large distances he adopted in planting,—"these distances I find necessary, for the *trusses of fruit* in my garden ground are frequently *a foot long*." The following is his method of culture, in his own words: "After the beds are planted, I always keep them as clear of weeds as possible, and on no account allow any crop to be planted between the rows. Upon the growing of the runners, I have them cut, when necessary; this is usually three times in each season.* In autumn I always have the rows dug between; for I find it refreshes the plants materially; and I recommend to those persons to whom it may be convenient, to scatter in the spring, very lightly, some loose straw or long dung between the rows. It serves to keep the ground moist, enriches the strawberry, and forms a clean bed for the trusses of fruit to lie on; and thus, by a little extra trouble and cost, a more abundant crop may be obtained. A short time before the fruit ripens, I always cut off the runners, to strengthen the root; and after the fruit is gathered, I have what fresh runners have been made taken off with a reaping-hook, together with the outside leaves around the main plant, after which I rake the beds, then hoe them, and rake them again. In the autumn, unless the plants appear very strong, I have some dung dug in between the rows, but if they are very luxuriant the dung is not required; for in some rich soils it would cause the plants to turn nearly all to leaf. I also have to remark, that the dung used for manure should not be too far spent; fresh dung from the stable door, is preferable to spit-dung, which many persons are so fond of."

In thus recommending a thorough method of culture, we would by no means wish to discourage those who have not yet attempted raising this excellent fruit, and who think they cannot afford to adopt such culture, from attempting it altogether; indeed, if proper varieties are obtained, good crops may be had with little or no care after transplanting; we have known beds almost untouched for years to yield plentifully. Nevertheless, we consider the *cheapest* method, ultimately, of raising this fruit, is by thorough culture; that the greatest amount of fruit is obtained in this way for the care and labor expended, and that the quality is so much superior to that obtained from slight culture, as to give the former practice very decided advantages.

When the beds have much diminished in their product, new plantations must be made to supply their place. This generally takes place in four or five years.

* Lindley says, in speaking of the Alpine strawberries, "If the runners are planted out in August or the beginning of September, the beds will be covered with runners by spring; these should not be removed as directed for the other classes, because the first and strongest of them will produce fruit during the autumn, and continue in succession to a late period of the season. But a succession of finer fruit than these is produced by cutting off all the flower stems as soon as they begin to blossom, from their commencement in spring till the end of June. By this means a most abundant supply of the very finest fruit is produced from the end of July till frost sets in."

Lime as a Manure.

Before we commence our examination of the "Essay on the use of lime as a manure," we present the following extracts from the Introduction which we think may throw much light on the nature of ASHES,—a subject which by many farmers has been very imperfectly understood.

"Ashes are made up partly of *soluble* and partly of *insoluble* matter. The *soluble* matter is separated by the familiar process of making ley; and the ley, if evaporated, leaves the solid substance so well known as potash.

"Potash is principally composed of a carbonate of potassa, but contains, besides silica rendered soluble by the alkali, sulphate and muriate of potassa, and a peculiar acid known by the name of ulmic, which is a compound of carbon, hydrogen, and oxygen.

"The *insoluble* part is made up of carbonate of lime, sulphate, and sometimes phosphate of lime, and silica. The carbonate of lime has probably in no case existed in the living plant, but arises from the destruction by heat of the peculiar acid of the plant: as for instance the citric, the oxalic, or the tartaric,—all of which are by fire converted into carbonic acid.

"The *quantity* of ashes is extremely various, as is their proportion of the several soluble and insoluble substances we have mentioned. Thus the ashes of the stalk of Indian corn yields 12½ per cent. of ashes, while the soft woods do not furnish more than two parts in a thousand. The proportion of the sulphate and phosphate of lime is even more various. Thus in some cases the presence of the sulphate is hardly perceptible, while of the ashes of clover it forms a large proportion of the whole weight. Phosphate of lime is found in the proportion of fifteen per cent. in the grain of wheat."

The author of the "Essay" arranges manures into two classes: ALIMENTARY, or such as constitute the food of plants, as the dungheap; and IMPROVING manures, or such as change the na-

ture of the soil, as lime. Some of his remarks on this subject, follow :

"Alimentary manures give much vigor to the leafy products; but they multiply weeds, both by favoring their growth and conveying their seeds; and they often cause crops of small grain to be *lodged*, when they are heavy. Manures which improve the soil, more particularly aid the formation of the seeds, give more solidity to the stalks, and *prevent the falling of the plants*. But it is in the simultaneous employment of these two means of fertilization by which we give to the soil all the active power of which it is susceptible. They are necessary to each other, doubling their action reciprocally; and whenever they are employed together, fertility goes on without ceasing—increasing instead of diminishing."

One of the chief uses of lime in the soil, is to attract and retain the gases that rise during fermentation from putrescent manures. By this action it prevents the plants from being gorged; and as a consequence, every part of the vegetable has the firmness of health.

"The greater part of improving substances," continues our author, "are calcareous compounds. Their effect is decided upon *all soils which do not contain lime*, and we shall see that three-fourths perhaps of the lands of France, are in that state. Soils not calcareous, whatever may be their culture, and whatever may be the quantity of manure lavished on them, are not suitable for all products; are often cold and moist, and are covered with weeds. Calcareous manures by giving the lime which is wanting in such soils, complete their advantages, render the tillage more easy, destroy weeds, and fit the soil for all products."

Some things in the preceding paragraph may require explanation. We believe soils have been presumed to contain no lime wherever its carbonate or sulphate, could not be detected; but we have shown in a former volume, by reasonings which we deem conclusive, that no natural soil is destitute of lime, though a large proportion of our own lands, as well as those of France, contain it in quantities far too small for the purposes of agriculture.

It is probable that our author was not aware that soils may contain much lime without being "calcareous," or which is not carbonated.

Calcareous matter is unfavorable to the growth of some weeds, such as sorrel; but there are many others, rank enough, which take no offence at its presence.

What follows is strong testimony in favor of liming:

"In every country where tillage is highly prosperous, IMPROVING manures are in use. The Department of the North (of France,) Belgium, and England, owe to them, in a great measure, their prosperity. The Department of the North (which is of all Europe the country where agriculture is best practiced and most productive) spends every year upon two-thirds of its soil, a million of francs in lime, marl, ashes of peat, and of bituminous coal; and it is principally to these agents, and not to the quality of the soil, that the superiority of its production is owing. The best of its soil makes part of the same basin, is of the same formation and same quality as a great part of Artois and Picardy, of which the products are scarcely equal to half the rate of the North.—Their great products are due to their excellent economy and use of manures, to the assiduous labor of the farmers, to courses of crops well arranged; but above all, we think, to the IMPROVERS of soil which they join to their alimentary manures. Two-thirds of their land receive these regularly; and it is to the reciprocal action of these agents of amelioration, that appears to be due the uniuterrupted succession of fecundity which astonishes all those who are not accustomed continually to see the products of this region."

Under the name of calcareous manures, the author comprehends "lime, marl, old plastering mortar, and other rubbish of demolished buildings, beds of fossil shells, or shelly substances, plaster or gypsum; and experience and reason will prove that we ought to arrange in the same class, and by the side of the others, *wood ashes*, ground bones, and burnt bones. We will not place in the same list the ashes of peat, of bituminous coal, and red pyritous ashes: their effect is not owing to their lime, but rather to the effect of fire upon the earthy parts, and particularly upon the argil [clay] which they contain."

Fruit Ladders.

Fruit trees are often much bruised, and greatly injured in consequence, by using ladders which rest against the branches while gathering the fruit. Very simple ladders may be made, which support themselves, and by which the fruit may be gathered with great facility, even from the ends of the longest and most spreading branches, without the slightest danger of injury to the tree. The following is one of the simplest. There are two upright slender posts, (which may be from six to twelve feet long,) inclining to within a few inches of each other at the top, and spreading from three to five feet, (according to the height,) at bottom. The rounds of the ladder connect these posts together, and the lower ones are made somewhat larger in the middle than at the ends, in order to give them greater strength. A third post is added, and is attached to the upper part of the latter simply by the upper round of the ladder passing through a hole in its upper end; thus permitting it to turn freely, so that its lower end may be placed at a proper distance from the other posts to enable it to stand firmly. It may then be placed under any part of the tree.

Generally however, where the required height is more than ten feet, it is best to make the ladder with the first two posts placed parallel to each other about eighteen inches apart, and then to connect, by suitable hinges or joints, *two* additional posts to the upper end of the ladder, so that they may at the same time be spread out from each other and from the foot of the ladder, thus forming a sort of tripod or three-legged stand. In this way, one may be made lighter and more portable than by the former method.

THE CROPS.—A letter from a friend at Friendville, (Pa.) dated the 21st ult. says:—"Our corn crops are generally very unpromising. Some of my neighbors have substiuted Buckwheat, but I have chosen Ruta Baga, with a fair prospect of success. Grass is abundant, but sadly lodged."

Small Matters.

These are the very things about which farmers in general are far too negligent. The great things are allowed to engross the whole time and care, while the important fact that every thing great is composed of parts, is wholly overlooked. If the parts are taken care of, the whole is safe; but a neglect of items frequently causes serious or total loss. It is the neglect of small matters in farming that makes such an annual reduction in the profits of the farm; and more agriculturists fail of securing competence in consequence of this fault than any other, or perhaps all others put together. A few kernels of chess, or a little smut in your seed wheat, are small matters of themselves, but the influence they exercise on the crop is generally a serious affair; yet too many deem their presence so small a matter, that an hour or two of fanning and liming is considered as time thrown away. A shingle from the roof of the barn is a small matter, so small that many farmers think it unworthy of notice, yet that shingle opens a place through which the rain falls on the wheat or the hay, and does sufficient damage in the mow to pay for a thousand shingles, and the expense of putting them on in the bargain. A rail fallen from the top of the fence, a board knocked off the gate, a hole made under the fence by the pigs, are also among the small matters, that too many farmers pass by as unworthy of notice. Yet when he gets up some fine morning, and finds his herds pasturing in his wheat, occasioning the loss of some half a dozen head—when he sees some unlucky stroller in the highway take advantage of the defect in his gate and demolish the remainder—and when he finds that his pigs have destroyed half an acre of potatoes, and made a feast of his garden vegetables, then he begins to think five minutes spent in preventing such accidents, springing from pure carelessness, would be better than a week spent in remedying or regretting them. The man who never pays attention to small matters, is precisely one of those who suffers most from unruly cattle and horses, who spends the most money in paying, and the most time in repairing, damages, and who will, unless he turns over a new leaf, most assuredly find that the whole cannot be greater than the parts, and that he is running on a rock which has been the ruin of thousands.

There are other small matters not so intimately connected perhaps with *success* in farming as those we have hinted above, yet which are equally, and perhaps more indispensable to the real *comfort* of the farmer. The mode of life which a man leads in his family—the manner in which the articles he provides for the use of his family are disposed of—the training and education of his children—and the taste he acquires and cultivates, may be numbered among these. Separately they are too generally considered of little consequence, yet united as their influence is, and must be, to be right in these things is very important.

The appearance of the farm dwelling, the skill shown in planning, and the taste in embellishing, are often ranked among the small matters of the farmer. Too many seem to imagine, that the farmer has no business with any thing but the plough and the hoe—that it is of no con-

sequence whether his taste, and his moral and intellectual qualities are properly cultivated and trained, forgetting that in the farming population resides the government—that they in reality make and unmake Governors and Presidents—and that as they are well or ill informed, so will their conduct be judicious or injurious.

Planting a tree for ornament or for use—a rose bush for its fragrance and its beauty—the lilac and the snowball for their agreeable appearance—the bed of strawberries for the gratification of the palate—the training the clematis ort he bittersweet over the windows to temper the light and refresh the mind by their vivid green and waving foliage, are all ranked among the small matters by many farmers, and the few minutes' required to accomplish all this, is deemed by such time thrown away. On the contrary, we think these very things as of great consequence; every tree and shrub planted adds to the value of the farm, for there are few men so insensible to natural beauty as not to be willing, in purchasing a farm, to pay something extra for its gratification; and no idea of agricultural comfort can be formed, in which some, or all of these things, do not make a part. Wealth is composed of parts of dollars—the longest life of seconds—happiness of single sensations—and the prosperity of the farmer very much depends on the strict observance of small matters. Dr. Franklin's advice was to take care of the pence, and the pounds, as a matter of course, would take care of themselves. G.

Natural History of the Flea.

Mr. Hussey, a member of the Ashmolean Society, Oxford, lately read before that body a paper in which the various changes through which this insect passes, were described from actual observation. Mr. Hussey ascertained that the flea lays from eight to ten eggs, which fall down into the dust, where they are hatched in about five days. They produce small white maggots, like young cheese mites, which increase in size for about fourteen days, when they spin a bag or case of silk around them, and assume the chrysalis state. Within this envelop they gradually darken in color, until, at the end of sixteen days, they come out perfect fleas, having been, on the whole, about thirty-four days from the laying of the egg to the perfect state. Mr. Hussey collected a quantity of dust from a mat on which a dog slept, and found it to contain both eggs and maggots, or larvæ. By putting this dust in a glass, and watching the changes of the insect, he found the chrysalis, or the mature flea, might be exposed to intense cold without producing any other effect than torpor, from which they quickly recovered when brought into a warm temperature. The fleas were found to survive the action of water twenty-four hours, and the larvæ or maggot was found to live three weeks without food. In the opinion of Mr. Hussey, heat, no matter how produced, was the surest to destroy them in all their stages, and for their prevention nothing could be so well relied on as cleanliness. At the same time, Dr. Buckland stated that he opened boxes which had been packed at Naples three years before, and found in them great numbers of fleas in full activity. He believed that the larvæ or maggot of the flea, from its being found in dust shaken off by dogs or swine, lived on the scales or scurf that fell from animals, while the full grown flea or perfect insect lived on blood alone. G.

Weeds.

The season has arrived when farmers should be on the alert to prevent noxious weeds from seeding, and thus spreading over the land. It would undoubtedly be better to eradicate them thoroughly and at once, but in many cases this is nearly or quite impossible, and the only thing that can be done, is, as far as practicable, to prevent the extension of the evil. This may in most cases be best done by cutting the weeds before the seed is sufficiently ripened to propagate the plant; and in no case should this cutting be omitted. Many plants spread entirely from the seed, and where they do not, cutting them when in full vigor serves as a severe check upon their growth, if it does not kill them. The Canada thistle, the Johnswort, the charlock, the steinkrout, and the whole catalogue of noxious weeds, should now be subjected to excision, if the operation has not already been performed. Many farmers who now cut their weeds annually, do not do it until the seeds are so far ripened as to grow whenever they are buried in the earth, a result to be carefully guarded against.

In making some excursions about the country, we perceive that several plants, that have not been generally classed among the noxious ones, are increasing to an extent that must be decidedly injurious, and should place them at once under the ban of proscription by every farmer. Among these may be placed the sweet elder, and the silk or milk-weed. The elder spreads from both roots and seeds, and when it gets a footing by a fence or a wall, it rapidly encroaches on the adjoining fields. It may not be as bad as the thistle, yet if our farmers allow it to propagate and spread, as they seem likely to do, they will find it bad enough and troublesome enough in the end. We much fear that Gen. Dearborn, by his eulogy on the silk-weed in the Horticultural Register, may induce some farmer or gardener, who is unacquainted with the weed, to introduce it into his premises. Should he do so, he will doubtless rue the day in which it is done, and not only he, but his neighbors, will have ample reason to regret the ill omened acquisition. If Boston folks, in the plenitude of their *notions*, choose to cultivate the silk-weed for "asparigus and greens," why let them, but let the farmer beware how he copies their example in introducing or suffering this pest to enter his fields. He will assuredly find it a troublesome visiter, injurious on the premises, and one of which it is excedingly difficult to get free. G.

Late Hoeing.

This is a poor practice for the farmer, and should be entirely abandoned. Better to let your potatoes and corn go without the third, or even the second hoeing, than after they have got a large growth, to go into them with your plough, cutting off some roots and exposing others, breaking down the stalks or trampling the vines under foot. If there are weeds or grass, cut them with the hoe, and gently stir the surface of the earth, and the oftener this is done the better; but do not meddle with the roots of your plants in an advanced state of vegetation, for if you do, nature is compelled to repair the results of your impertinent interfence, and it sometimes requires so much time to do this, that your crop suffers severely in consequence. A little attention will convince any one, that all plants require that some of their roots should run near the surface, and if these should be cut off by ploughing, or covered deep by hoeing and hilling, new ones must be put out to supply their place. This is particularly observable in corn, and any new effort of the plant in this way, must so far detract from its ability to mature and perfect its seed. Potatoes are clearly provided with two sets of roots, one of which penetrate deep into the earth, and are employed in furnishing food for the plant, the usual office of roots; the others are thrown out horizontally immediately below the surface, and are the ones on which the tubers are formed. If potatoes are ploughed late in the season, it is evident those horizontal roots must suffer, and the formation of tubers be accordingly retarded. If the potatoe plants are hilled deep after the horizontal roots are thrown out, and young potatoes formed, new roots nearer the surface will grow, another layer of tubers will succeed, which will so far detract from the nourishment that should have gone to those first set, that the whole will be small, and at the usual time of gathering a large part of them will be immature and unripe. While therefore frequently stirring the surface of the earth, and thus keeping it light and loose, cannot be too strongly enforced, ploughing or hilling, when the plants are advanced in growth, should be as unequivocally denounced, as contrary to sound theory, and detrimental in practice. G.

Siberian Crab.

There are few kinds of fruit trees which are greater bearers, which produce more elegant flowers, or make a finer display of handsome and valuable fruit, than the apple tree called the Siberian Crab Apple. But a little larger than a good sized cherry, the beautiful rich red fruit on its long stem hangs most temptingly, but is unmolested by the birds, which seem at first to regard it with evident longing. When fit to gather, the fruit is far from having an unpleasant taste, being destitute of the bitter flavor that characterizes the common crab of this country. The taste is a clear pleasant sour, and the fruit makes one of the most delicate preserves with which we are acquainted. The red Siberian at present demands a high price in the market, and will probably maintain it for some time to come. It is one of the easiest fruits to propagate, either by grafting or by inoculation, and as the time for the latter operation is approaching we advise those of our farmers who wish for a beautiful acquisition to their fruit gardens, to introduce the Siberian without fail. G.

ERRATA.—Page 233, col. 1, line 8 from bottom, for "ranks it *among* many more," read "ranks it *far below* many more," &c.—col. 2, line 20 from bottom, for "*Ceoropsis*" read *Coreopsis*—col. 2, line 5 from bottom, for "*Linnæn*" read *Linnæan*—col. 3, line 26, for "capitati" read *capitata*.

Hard Laws.—Several persons have been fined five dollars each for smoking on Boston Common!

COMMUNICATIONS.

FIG. 1.

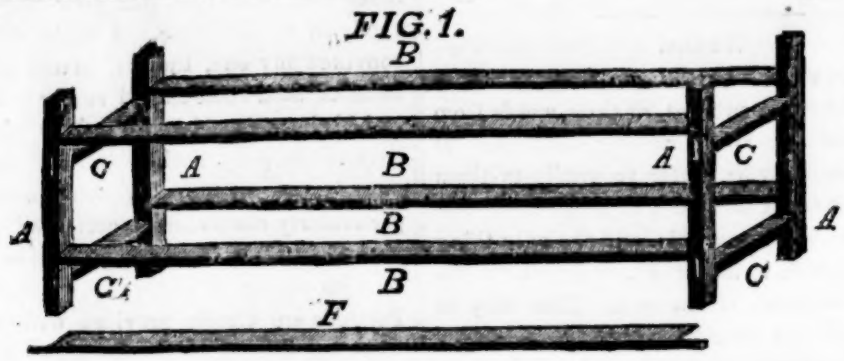
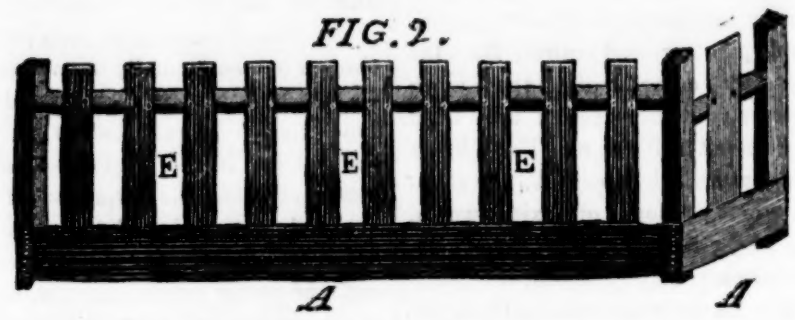


FIG. 2.



Sheep Racks.

BY W. W. B.

The above plan of a sheep rack, an improvement of Mr. John Powers, of Urbana, Steuben county, N. Y., an intelligent an experienced wool grower, is highly approved in this part of the country. For convenience, simplicity of structure, and durability, we think it the best we have ever seen. It takes the precedence here of all others. The draft we took from one in Mr. Powers' yard.

This rack is composed of a frame of four posts and eight horizontal pieces, on which are nailed upright slats, and a board around the bottom. Fig. 1 represents this frame, and fig. 2 a front and end view of the rack after it is finished.

Frame, 11 feet long by 2½ feet wide from outside to outside.

Posts (*a. a. a. a.* fig. 1) 3½ feet high, made of three inch scantling.

Horizontal pieces, (*b. b. c. c.*) at the sides and ends made of stuff three inches wide and an inch a half thick, framed into the posts by boring with an inch and a half auger, and inserting a round tenant, the flat side up. The shoulders of the tenant are cut on the inside as represented by *f*, so that when put together the slats will be even with the outer edge of the posts. The lower side pieces are 11 inches from the bottom of the posts—the lower end pieces 8 inches. The upper side and end pieces 2 feet above these from center to center of the tenants.

The slats, (*e. e. e.* fig. 2,) 6 inches wide, made of three quarter or five eighths stuff, nailed on with six-penny nails 6 inches apart, thus making a space of just one foot for each sheep, with sufficient room for inserting the head between the slats; at the ends, two of these are placed together in the center, making interstices of 6 inches between them and the posts.

The bottom board, (*A. A.* fig. 2,) 9 to 12 inches wide—the top edge comes up 13 inches from the bottom of the posts, covering the horizontal pieces and the lower ends of the slats; it is nailed firm on to the posts and the horizontal pieces.

As the space at the sides is just ten feet six inches in the clear between the posts, there are eleven interstices of six inches each—and the rack it will be perceived will accommodate 26 sheep—*eleven* on each side, and *two* at each end. It is of such a height that the sheep will not jump into it; the fodder is so secured that it is not trampled under foot, and wasted, but may be eat up clean. This rack, it will readily be perceived, is very simple and easy of construction; any person with the least share of mechanical ingenuity, who can handle a saw, an auger, and a hammer, can make one. It is strong, and not subject to be racked to pieces; light and easy to be moved from place to place; convenient for the use for which it is designed, and, if properly taken care of, placed under shelter during that part of the year when it is not wanted, will last for a great many years. We would recommend to all who raise sheep, and who regard economy in the use of fodder as important, a rack of this construction.

W. W. B.

Sugar from Beets.

BY OBSERVER.

We are heartily glad to perceive that efforts are making to call the attention of the public to the subject of sugar from the beet, and we hope it will not be lost sight of till some well conducted experiments shall have fully tested in this country its practicability and its profit. For ourselves, we know of no new branch of industry that promises more beneficial results, or a handsomer remuneration to capital and labor in the northern states, than sugar making from beets. We shall give a few reasons for this belief.

First—Experience has proved, that the climate and the soil of the northern and middle states is admirably adapted to the growth and perfection of the beet root. All the varieties of the beet succeed, and crops are produced which are rarely equaled in the old world. From thirty to thirty-five tons per acre have been grown both in Pennsylvania and in Massachusetts. Indeed, there are few if any crops more certain than that of the beet. The culture is easy, and the labor of gathering them trifling when compared with some others.

Secondly—Making sugar from beets is comparatively a recent process, and therefore the probability of improvement in the manufacture, and an increase of product, is far greater now than if the attention of chemists and practical men had for a century been directed to it. Sugar from beets was first made in Silesia some thirty years since, but seems not to have been much thought of, until, during the continental wars between France and England, the latter swept the marine of the former from the ocean, and France, in order to procure a partial supply of this necessary article, was compelled to resort to the beet root in 1810. The manufacture, under the scientific skill of Chaptal, and the careful superintendance of Mr. Isnard, rapidly progressed in the years 1811 and 1812; but after the fall of Napoleon, it languished under the sway of the Bourbons, who seemed to despise it for its imperial origin. The manufacture, however, kept silently spreading, and the quantity produced last year in France, was estimated at sixty millions of pounds. During the first years of the manufacture, the quantity of sugar produced was not more than five or six per cent., and several days were consumed in the process. Now the average estimate of product is ten per cent. of white fine grained sugar, and the process has been shortened to eight hours. There is no reason to suppose the manufacture has reached the limit of produce, or facility of making, and it is not the character of New England industry or skill to suffer improvements from abroad to retrograde.

Thirdly—Much of the present agricultural capital of the northern states is employed in feeding cattle; and large quantities of roots, either of the turnep or beet kind, are annually raised for this very purpose. In France it is found that the value of the root is but little impaired for feeding by the grinding and extraction of the juice; hence, if under present circumstances there is profit in growing beet roots for cattle, that profit must be much advanced when the sugar made from the same roots is taken into the account. In France, large numbers of cattle are fattened at the sugar manufactories during the time they are in operation, and both the beef and the milk thus produced is found to be of good quality.

For these reasons, and more which might be adduced were it necessary, such as the ameliorating qualities of the root culture, and the uniform fertility of the soil where it has been adopted, whether in France or in England, and the consequent increase and value of the alternating crops, we think this subject should not be lost sight of. We much question whether the culture of silk holds out greater advantages in every respect than does the cultivation of the beet for sugar. That the Chinese mulberry can with safety be calculated on for silk growers in our northern latitudes, the results of the last winter seem to render rather problematical, while there is no more doubt respecting the success of the beet, than there is of the potatoe. The only question would seem to be, will the product pay the expences of working?

Mr. Isnard, who was one of the first to adopt the culture, and superintend the manufacture in France, is clearly of the opinion, that capital

invested in the business will pay from thirty to sixty per cent. Should the result show that only one half of the lowest sum was realized as clear profit, it needs no argument to show, that few agricultural operations yield so large a dividend. The sugar beet is a great bearer, and crops as large as those of mangel wurtzel may at least be calculated upon. From some papers, published by Mr. Powel of Pennsylvania, and by Mr. Little of Massachusetts, on the culture of the mangel wurtzel and the sugar beet, it appears that both these gentlemen had produced crops of the beet root, varying from thirty to thirty-five tons per acre. By improvements in the manufacture of the sugar, as mentioned above, ten per cent. of a first rate article is considered the average product, which at the rate of thirty tons of roots to the acre, would give three tons, or six thousand pounds of sugar to that quantity of ground; and as the sugar could not be estimated at less than ten cents per pound, the value of the product per acre would be six hundred dollars.

It is admitted, however, that the yield of roots stated as having been obtained by these gentlemen is an extraordinary one, and would very rarely be reached by the beet cultivator, yet taking the product of roots at only one third of theirs, or ten tons per acre, which all will admit is a very moderate yield, being only about four hundred and fifty bushels per acre, and still the profits will be such as to far outgo all the other branches of agricultural industry.

From notices in the Philadelphia papers, we perceive that a company has been there organized to introduce the manufacture into that state, and we trust, that as there will be no want of capital, so the spirit with which the enterprise has been entered upon will continue, till success shall crown their efforts, and an example be set to the north that shall not be lost in the various efforts making to add to their productive industry. A gentleman well qualified for the post hast been sent to France and Germany, to learn the best methods of manufacture, and obtain experienced laborers; a considerable quantity of sugar beet seed was forwarded in season for distribution among the friends of the enterprise, and we hope before the close of another to hear a good report from the Pennsylvania company. It is clearly the duty of every farming community, to produce among themselves every thing required for their own consumption, when such an event is practicable; there will always be enough remaining to furnish employment for the commercial resources of the country, and bind states and nations in the close bonds of reciprocal benefit. We think there are indications that a reliance on the West Indies for sugar will ere long be futile. Great Britain has abolished slavery in her colonies, and the example of St. Domingo would go to prove, that where the negro is free the cultivation of sugar will not be attempted—cotton and coffee will be preferred. That any of the West Indian islands will be able to maintain slavery for a considerable length of time appears doubtful, and even if they do, the supply of sugar must be limited. In our own country, the extent of territory admitting the cultivation of the cane is so small, that it is evident we must continue to look to other sources for a supply of sugar. If Great Britain chooses to receive hers from the East India possessions, that can be no reason why we should follow her example, or remain tributary to other nations for so essential an article of domestic consumption. Nature has placed in our hands the means of becoming in this respect really, as well as nominally, independent; it only remains for us to avail ourselves of the science and skill of the age to bring about so desirable a result. As citizens and farmers of the north, shall we hesitate? OBSERVER.

Food of Plants.

There has been much speculation among chemists and physiologists with regard to the nutriment which sustains vegetable existence, or, as it is technically called, the food of plants. One class of theorists have contended that plants draw their nourishment from the earth, another from the atmosphere, and a third from water. The former rely on the fact, that plants grow more luxuriantly in some soils than in others, and in proportion as these soils are manured, as conclusive evidence of the truth of their theory. Among this number was the ingenious Mr. Tull; but he insisted that manures had a mere mechanical action upon the earth—that they furnished no additional food to plants; but simply performed the office of a knie, or other instrument, to divide that already and inherently existing into particles sufficiently minute to be taken up by the roots and transmitted to the branches, through the medium of the fine vessels which exist in every vegetable: But if this were the fact, all soils equally tilled would be equally productive, precisely the contrary of which every farmer knows to be the truth. The fact that open and finely pulverized soils will always produce prolific crops, if not too sterile, is to be accounted for on a very different theory. It readily receives and retains in its bosom the food of plants, which are bestowed upon it by the hand of the husbandman, and which nature benignly confers upon it in rain, dew, air, sunshine, &c. It also affords the roots and their fibers a free passage in quest of food. This unquestionably is the true reason why well tilled land is highly productive.

The advocates of the theory that plants draw their nutriment from the atmosphere, deduce their conclusions from the fact, that such vegetables as have a succulent leaf, among which are vetches, peas, beans, &c., draw most of their nourishment from the air, and on that account impoverish the soil less than wheat, rye, oats, &c., the leaves of which are of a finer texture. But this by no means establishes the theory that all plants exist independent of the food derived from the earth; nor does it even conduce to prove that the earth merely supports the plant, while the atmosphere alone is capable of furnishing it with abundant nourishment. Those that have contended for the latter theory—that water is the great storehouse of the food of plants, have relied upon the results of experiments to establish its truths. Among these were Thales and Helmont. The latter supported his opinion by the following plausible experiment. He planted a willow weighing 5 pounds in a pot filled with dry earth, and watered it for five years with rain water, at the expiration of which he again weighed it, and found it had increased 159 pounds, exclusive of the leaves that had fallen from it; but that the earth in the pot had not been diminished at all. Hence he concluded that it had drawn all its nourishment from the water. But when it is considered that water is an heterogenous fluid, no where to be found in a state of absolute purity—that it always holds in solution animal or vegetable substances, which are the food of plants, and that the element in which they are suspended acts only as their conductor through the circulating vessels, the fallacy of this theory, however specious it may at first appear, will be manifest. It is also a fact that hyacinths, and other bulbous roots, will perfect their flowers in pure water, and hence some of this class have drawn an argument in favor of their favorite theory. But the truth is, the roots, stem and flowers of such plants, are sustained by the mucilaginous juices of the bulb, diluted by the water in which it is immersed. The efficacy of this mucilage is barely sufficient to perfect the flower—it will not enable it to mature seed or send out offsets.

Though the advocates of the doctrine that plants draw their nutriment from the earth are agreed in principle, yet they disagree as to the nature of the substance on which they feed. Some contend that salts are the sustenance of plants, and others that oils are their only food. Some claim that each plant has its peculiar and appropriate food, and others that all feed on the same food.

It would be interesting and useful to examine all the various theories which have been advanced by scientific men on this subject, but our limits will not admit of our discussing them at length, and we must content ourselves by adverting to the theory of Dr. Home, which of all others appears to us most rational. After briefly noticing the principal of the foregoing theories, he says:—"It is the common fate, in all disputed points, that each attaches himself to one side, without allowing the other any share of truth. I have found by experience, that each side has generally some truth in it; that mankind err by extending that particular truth to a general one; and that the real truth is generally made up of somewhat taken from each opinion. The reasoners on agriculture have failed, because they asserted that plants were fed either by air, water, earth or salt. I join in some measure with all these, and assert, that plants are nourished by these bodies, united with two others, oil and fire, in a fixed state. These six principles joined together, in my opinion, constitute the vegetable nourishment."—*Silk Cult.*

Rearing of Hogs.

There is, perhaps, no part of the business of the farmer so badly attended to in this country as that of raising swine. It is quite a common thing for those, who are even largely engaged in agriculture, not to raise as many hogs as serve the purposes of their home consumption. The reasons which lead to the discreditable result may be traced in part to the following causes, viz:—1, neglect in the nurturing and feeding the animals—and 2, indifference to the selection of a good breed. That every farmer should not only be able to raise hogs enough for his own bacon, but that he should have some to sell, are facts so susceptible of proof that they do not require argument to illustrate their tangibility, nor will any be so adventurous as to hazard their denial.

By the term "good breed," we do not mean to say that *size* should preponderate in the choice; on the contrary, *that* should form but a secondary consideration, for there are other prerequisites which enter into the composition of "a good breed" of hogs, that are of infinitely more moment. *Size*, to be sure, where a farmer or planter has a large number of hands, is an object, but then to render that *object* desirable, it must be attainable at a small cost. Early maturity and a disposition to fatten are, therefore, traits of character in "a good breed" of hogs, which should never be overlooked. But it will appear obvious to any intelligent mind, that however much a hog may be predisposed to early maturity, or to take on fat, that that quality can alone be rendered available where the animal is well treated; for even a race of giants would be reduced to the size of dwarfs if badly and scantily fed, as it is contrary to the principles of animal economy, that *magnitude* and *volume* can be given to the carcass of either man or beast, who does not daily receive a generous allowance of nutritive food. Half feed a boy from infancy to manhood, and what is the consequence? A meager, ill-looking, undersized being is presented to our view, at the period of his majority—and, we would ask, can we expect a better fate to await the hog which shares a similar treatment? If we do,

we most assuredly have mistaken the principles which obtain in the development of the animal functions, and we will as assuredly reap a rich harvest of chagrin and disappointment; nature, whether presented in the requirements of humanity, or those of the more humble and pretensionless petition of the family of swine—whether the animal body belongs to the one or the other—must have its necessities supplied—its wants and the cravings of its appetites must be gratified. As well may we expect a luxuriant crop from a sterile field, without proper manuring, as to expect that hogs, however good the breed, will prove profitable, if not well and judiciously kept and fed. He, therefore, who would have a plentiful supply of hog-meat for his household, or for sale, must *begin right*—he must be liberal, just and enlightened; for true economy in the *raising* of them, as well as in that of any other stock, consists in consulting nature. To enable them to grow, a proper quantity of nutritive food must be provided. If the grower of hogs expects to have his meat-house filled without it, he will be egregiously mistaken. Hogs may be kept in a good thriving condition upon a well set clover field through spring and summer, and so may they also, during fruitful mast-years, in the woods; but in either case the proprietor will find his interest promoted by providing full portions of roots, as *potatoes, ruta baga, mangel wurtzel,* and also pumpkins. The raising of these will require labor and expense, but the difference in the weight, and value of his animals, will more than repay him for both. If his hogs are destined to run in a clover field, it should be in one where there is a copious supply of water, and the animals should be ringed to prevent their rooting. We hold it, however, best that they should be penned and only occasionally permitted to range in the field, and that the roots which they may receive should be cooked either by steaming or boiling.

It has been affirmed that hogs do not thrive well if confined in a pen and soiled with clover; for ourself we are not a believer in this faith, unless where from neglect an abuse of this kind of feeding takes place. When the hog roams at large he has a chance of being his own physician—in the fields or woods on which he may graze, he finds numerous herbs and other substances which serve as medicaments to correct the enervating effects of his exclusive vegetable diet; and it is, therefore, but reasonable, when he is cut off from these, that he should be furnished with substitutes to keep down the baneful effects of the crudities of those substances which he receives into his stomach. All vegetable bodies which are edible are charged with more or less of acidities, the which, if permitted to remain uncorrected, will prey upon any vitiate the digestive organs. At this point then, nature must be assisted, and it may easily be done. Rotten wood, charcoal, or chalk, if placed in a convenient part of the pen will be readily partaken of by its tenants, and will preserve them in health. In addition to these it will be found serviceable to mix moderate portions of flower of sulphur and copperas occasionally with their messes.

If the hogs be confined in a pen altogether, they cannot be kept with too much regard to their comfort and cleanliness, for although when permitted to range they luxuriate in mud and filth, under the former circumstances, their bedding should be frequently changed, and their bodies in warm weather receive the benefit of periodical ablutions. With these precautions, and proper feed, to be given at regular intervals, there is no question but they will not only thrive well, but prove a profitable stock to any farmer who may try the experiment of thus raising them.—*Farmer & Gardener.*

Cure for the Garget in Cows.

Cows after ceasing to be milked are very apt to suffer from an induration of the glands of the udder, and it not unfrequently happens that the same effect is produced by negligent milking. If a cow be not stripped at each time, she will ultimately go dry, and oftentimes the most serious consequences result to the animal from the effects of this neglect of the dairy-maid. Whenever the udder becomes inflamed and hardened from either of these causes, let a liniment be composed of camphor and blue ointment, and the udder be well embrocated therewith, and should a feverish condition of the animal ensue, a dose of salts, say 3 or 4 ounces at a time, should be exhibited for 3 or 4 days in succession. —*Farmer & Gardener.*

From the Baltimore Republican.

A Remedy for the Fly in the Wheat.

Messrs. Editors—Some time since, in a communication published in the Baltimore papers, I stated my views on the destruction of Wheat by the Hessian Fly, and offered a remedy against its ravages. As this season will be remarkable for the devastation committed by this insect, and as the time is approaching for seeding for the next crop, I request a small space in your columns to bring before our farmers again the remedy then proposed, fully believing that if followed, much good will result from it.

On observation it has been found that the insect producing the fly progresses with the growth of the wheat; and if the wheat is early sown, and the season is favorable to a luxuriant vegetation, the fly will be very perceptible in the autumn. The progress of the insect, as observed in a former communication, is from the seed upwards, and as many as six or ten have been observable on one stem between the root and surface of the earth,—the question then arises, how is this insect generated, and what means should be used to destroy it? It is either generated *in* the grain of wheat, similar to the bug which infests the pea; or, *the insect when in its winged state deposits an egg on the surface of the grain when in the ear, and thus when the wheat is sown and begins to vegetate, the egg vivifies and the destructive worm is formed.*

For the following reasons I am strongly inclined to the latter opinion,—it is known that this insect releases itself by bursting the blade that covers it, when the head is forming, and assumes *its winged state,* and there is to my mind no doubt that this fly deposits its egg on the wheat when filling and coming to perfection. If I had any doubts on this subject they would be removed by the fact, that with the aid of a microscope the egg is discernible in the form of a glutinous matter. If this opinion be correct, the remedy is simple and worthy at least a fair trial. Providence inflicts no evil upon mankind, without also providing some remedy; and unless this is intended as a special curse upon the husbandman, there is and must be a remedy, which he must find out by actual experiment. In the course of twenty years experience in this matter, I have known but one experiment made to destroy this fly, and that proved successful. An intelligent farmer in Loudon county, (Va.) having understood that some of his neighbors, with the aid of a microscope, had discovered a glutinous matter on the surface of the wheat which they believed to be the egg of the fly, determined to try an experiment for its destruction, and succeeded in that crop, but unfortunately it was not followed up, and whether it will be an effectual remedy in all seasons remains yet to be tested. The plan which he followed, and which it is the object of this communication to recommend to the notice of the farmer, is simply to pass the seed wheat through a strong brine of pickle, washing it well, and then rolling it in slacked lime, (similar to rolling it in plaster of paris,) not preparing at one time more than a day's sowing. Washing the wheat in brine, and rolling it in lime, is done primarily for the purpose of destroying the egg, but it answers another good purpose, that of preventing the smut. The lime will also be found to act as a powerful stimulent to the growth of the wheat, and superior to that of the plaster.

This remedy being so simple, and as I firmly believe so efficacious, I hope there will be many farmers disposed to make a trial of it, and thereby fully test its correctness. If I should be instrumental in arresting this direful enemy of the farmer, I shall be amply compensated in the reflection that I have discharged my duty to the community.

An Agriculturist of Maryland.

Peach Trees Cultivated in Pots.

The American Gardeners' Magazine contains a long and interesting article on the subject of the management of *peach trees in pots.* It is from the pen of the conductors of that excellent work, and although the necessity of *such culture* of this most luscious fruit does not exist with us in this part of our country, yet there are other parts in which many of the suggestions might prove useful.

The method which these gentlemen have adopted is to raise the plant from the seed. They plant the peach stones in November, in a bed in rows about 3 or 4 inches apart, and cover them an inch or more in depth. In the month of May the plants make their appearance. About the 1st of June, they take them up and pot them in good sandy loam and leaf mold. The plants are placed in a warm shady situation for a week or two until well rooted, when they are removed into a sunny aspect, and the pots plunged to the rims in the soil. Throughout the summer they give them supplies of liquid manure, and the pots are kept free from weeds.

In the month of August, if treated well, they will be large enough for and should be budded. The lower leaves should be stripped off to the height of 8 or 10 inches, a few days before inoculation. *Buds should* then be procured, of the best kinds, suitable for pot culture, and immediately inserted, choosing a dull cloudy day for the operation, and performing it very skilfully, as the stocks are so small that the buds will not unite quite as freely as on those two years old. After the buds are inserted, the plants may remain in the same situation until severe frosts occur in the fall, when the pots should be taken up to prevent their being broken and placed in the cellar. If any roots run through the holes they should be cut off. Two or three waterings will be sufficient through the winter. In the spring of the year the pots should be placed in a hot-bed or green-house to give the plants a start; head off the shoots three or four inches above the buds; when these have made a growth of a few inches, they should each be tied to small sticks to prevent their being injured by the wind or other accidents. Water the plants freely. The plants should now be repotted in a rich mold, in *large* pots, 12 or more inches wide at the top and about the same in depth. On the approach of winter they should again be placed in the cellar.

In pruning the trees in pots some care is requisite, all the superfluous branches in the culture of the tree must be cut off, and all the strong shoots must be headed off. Always prune with an eye to the succeeding year's wood and crop, and not let the trees grow up tall and straggling. They should never be permitted to assume a greater height than five feet.

The trees should have plenty of water, sun and air. The conductors say they never have tasted finer peaches than those they have raised in pots, and think it would be a delicious treat for a gentleman to place one of those trees bending beneath its fruit on his dinner table for his company to pick from. The peach tree thus raised is said to be less subject to disease than when raised in the open air.—*Far. & Gar.*

The Wheat Fly.

The wheat fly, which committed so great ravages upon the crop last year, has again made its appearance, and has already effected much injury. Mr. Evans has a communication on the subject in the *Montreal Courier.* The following extracts, which describe the appearance and habits of the fly, will be read with interest.

The fly is about the size of a moscheto, but the body is rather longer, and the legs shorter; the body is of bright orange color, and the wing transparent, changing color according to the light in which they are viewed. I have examined them with a magnifying glass, and the body appears as if formed of rings, and coming to a

sharp point at the extremity or tail. The body has very much the appearance of a wheat maggot when in a full grown state; the color is exactly the same.

The first day I discovered the fly this year was on the 29th of June; and on the 4th of July in the evening, I found them depositing their eggs in the ears of barley. The maggots produced from these eggs are now, and have been for the last two days, quite visible to the naked eye, and are nearly full grown. I have seen barley on the 14th that I believed to be more than half destroyed, or that has maggots in more than half the grains, whether it will be destroyed or not. The fly was last evening as active as on any previous evening stinging the wheat ears, and depositing its eggs; and from their numbers it is difficult to imagine how any wheat can escape. I have, with the glass, discovered the larvae in the wheat glumes, and they have now both life and motion; in some of the ears they are visibe to the naked eye. The fly remains concealed during the whole day about the roots and does not come upon the ears, until it is near sunset, unless it is very calm. Then perhaps twenty may be seen on one ear. I have used lime, which I scattered over the wheat while the dew was upon it, to such an extent that in the evening it appeared as if white wash had been scattered over the field, but the fly was still as active after the lime was applied as previously. I scattered about fifteen pounds of snuff mixed with wood ashes over about an acre, and it was equally unavailing in checking the fly.

I had not sown any of my wheat this year it was so injured by the maggot, but purchased seed from a farmer which had not suffered by the fly last year, consequently it could not be the seed that produced the fly this season. Last year I made use of powerful disinfecting liquor in preparing my seed wheat, so that it was impossible that any animaculæ which might have been concealed in, or attached to, the grain, could have retained their vitality, or produced the fly with me last year. I would farther remark, that my wheat was on new land never previously cropped, and partly surrounded by woodland and meadow.

I have planted potatoes this year where damaged wheat grew last year, and though several times ploughed, the fly appears about the young potatoe plants in countless numbers, at the same moment they did in the growing corn; and as the communication in your paper of yesterday stated that the fly remained in, or hatched in the straw, chaff, &c. of damaged grain, I observe that I did not make use of any dung this year to my potatoes, as the land was sufficiently fertile without it, therefore the fly could not be produced in the potatoe soil from manure made of the straw and chaff of last year's crop. I do nevertheless, believe that the flies are hatched in ploughed soil. I laid down with grass seed last year a field of wheat that was greatly injured by the fly: I have carefully examined it, and could not discover a single fly among the clover and timothy growing upon it, though the wheat stubble is long and is not yet rotted. Last evening the fly had disappeared from the barley, as it is now too advanced a state to receive their eggs. I fear that extensive damage is done to the barley crop, though some of the grains on which maggots are found, are not entirely destroyed, and the grain will soon be too hard for them to feed upon. Hence the injury may be less than the present appearance would indicate. It is not yet possible to calculate what may be the fate of the wheat crop, I fear a greater failure than in any previous year. Another week will determine the matter.

I know a farm that had not wheat grown upon it last year or this, and yet the fly has produced extensive injury in a barley crop now growing. It may be well to be acquainted with all these circumstances.

Perhaps the only thing that the *farmers* can do, will be to desist from sowing wheat for two or three years, until the fly has been got rid of from their not having suitable food for their larvæ to subsist upon.

Though barley is not proof against them, yet I am satisfied that wheat is most suitable for for receiving their eggs or larvae snd to serve for their food afterwards. The turgid or corn wheat of England is said to be proof against their ravages, and were we to try this wheat, it might succeed in Canada as a fall wheat. It is said to have a strong vigorous stem, and a large coarse grain. By sowing it early in the fall, the latter end of August or beginning of September it might resist the severity of the winter. If we could grow a wheat that would be in ear the first week of June, it would be safe from the fly. I remarked last evening that the flies did not go upon the ears of the wheat that were shot out, but upon those now appearing, as if the first were too hard for them, or that they had already been infected with their eggs.

Burning the stubble upon fields that carried a damaged crop, might be of great benefit, provided the fire was to run all over the soil, otherwise it must be useless. By adopting this plan, lands that were seeded down, would necessarily have all the young grass destroyed.

Rye Harvest.

Abundant experiments have proved that rye should be harvested early. The advantages gained by early harvesting are—

1st. More time is allowed for securing the crop.

2d. The straw is firm and stands well, and the berry, (unless cut too early,) will not shrink as much, neither will it shell enough to pay for harvesting, as is often the case when cut late.

3d. The straw is worth much more for provender, to be cut when the joints and butts are green.

The rye plant begins to ripen at the top, and when it becomes dry a few inches below the head, no more nutriment can be received from the earth. Every day that it remains in the field uncut after this period, is productive of injury both to the grain and straw.

In many parts of the country farmers put up their grain after it is bound, in two rows of six or eight sheaves each, leaning against each other, and cap the shock by splitting sheaves at the seed ends and putting it over the shock. In this manner they let it remain until all their grain is cut, when they commence drawing. We are not prepared to say that this is the best way to shock grain in all cases; but grain had better be put up in this way even when quite damp, or green, than to be allowed to remain on the ground exposed to the rain—as in this way it will soon dry through in fair weather, without the trouble of setting our the sheaves.—*Hampshire Rep.*

Chinese Mulberry.

The time having arrived for laying down the Chinese Mulberry, the following extract of a letter, dated September 1835, from any a gentleman who is practically acquainted with the business, may be of use to new beginners: 'The manner of putting down the mulberry and covering the branches with earth, is *bad, decidedly bad.* Many of them rotted, some wholly, and some in part only. I put them down in various ways—some I put down with the tops out—some with tops covered, and some I broke off—*the last did the best.* Now the way to do the thing as it should be done, is this—I know by experience, and one grain by experience is worth a pound of speculation. My own method is this:

'*Bend the shoot flat to the ground*, nip off the tip or top, *mind that*—secure it with forked sticks and do not put any earth upon the branch, (except where the buds have just started.) The buds will shoot upward with great rapidity, and when about one inch high, *then cover the stalk lightly with earth*, and the fibrous roots will immediately shoot downward, in every direction—this I know. In this way, there is not the least danger of smothering the plant or buds.

'*Remember*, the top must be nipped off, or the plant will grow from that end only, and the buds will not grow so well. I have found, that covering the plant or branch with earth, when first laid down is a great error, at least I think so, with all due deference to your better judgment and experience.'

The same gentlemen sprouts his seed by placing it on a cloth between sods of turf, and moistening the upper turf with warm water. The foregoing results are so conformable to our own experience of the last year, that we most cheerfully recommend our correspondent's mode of putting down the mulberry for layers, and we are doing the same ourselves.—*Northampton Cour.*

The experiment of paving streets with wood has been adopted in one at Cincinnatti for the purpose of testing its cost, &c.

CLAIMS ON TRINITY CHURCH IN THE CITY OF NEW YORK—At a large meeting of the descendants of Anneke Jants, held in the court room at Poughkeepsie, on the first day of July current, the subscribers were appointed their committee and agents, and directed to publish the proceedings of that meeting, which were as follows:

At a numerous meeting of the descendants of Anneke Jants, held at Poughkeepsie in Dutchess county, pursuant to public notice, on the first day of July 1836, Judge Trumpbour, of Saugerties in Ulster county, was called to the chair, and John Van Buren, esq. of Kingston in said county, was appointed secretary.

Mr. George Sullivan, of counsel for the heirs, being called upon to inform the meeting of the actual state and prospects of their claims, made a lucid and concise exposition of the rights of the claimants, the proceedings which had thus far been had in chancery, and presented a history of the claim from its earliest stages.

On motion it was unanimously resolved, that the descendants of Anneke Jants do unite in the prosecution of their claims against the Trinity Church of the city of New York, and persevere in it until the final decision of the highest tribunal of the state shall award them their rights, or decide that these are lost beyond recovery; and that a committee be appointed to take such measures for carrying into effect this resolution, as they may deem expedient.

Resolved, That this committee consist of three persons, and that Judge Trumpbour of Saugerties, Ulser county, Peter Oakley, esq. of Fishkill, Dutchess county, and John L. Bogardus, esq. of the city of New York, be said committee.

Resolved That said committee have full powers to carry out the objects of the foregoing resolutions, in accordance with the provisions of the agreement of the 10th of July 1830.

An agreement was drawn up and annexed to the original agreement providing for the raising of funds for the prosecution of the suit instituted by their counsel, Mr. Sullivan, and such other suits as he and said committee may deem expedient in the premises.

Resolved, That said committee have power to call meetings of the descendants of Anneke Jants, at such times and places as may be convenient, by public notice or otherwise.

Resolved, That these proceedings be published in the newspapers of this state, with a view to apprise all who are interested in these claims of the course intended to be pursued.

Jacob Trumpbour, Ch'n.

John Van Buren, Sec'y.

The subscribers, in further compliance with the wishes of the heirs assembled on this occasion, earnestly request, that all persons who are descendants from Anneke Jants, or connected by marriage with her descendants, will forward in writing their names and places of residence and their respective pedigrees, so that they may receive the circulars which the committee are preparing to send them. It has become important that all should specify, as soon as may be, their respective descents, so that their respective shares or interest in the property may be ascertained. These communications may be directed to either of the subscribers, who in return will send information from time to time, of the progress of the prosecution, its prospects, and the means relied upon for success. New York, July 7, 1836.

JACOB TRUMPBOUR
Saugerties, Ulster couuty.
PETER OAKLEY,
Fishkill, Dutchess county.
JOHN L. BOGARDUS,
General Land Office, 3 Clinton Hall.
Beekman street, New York.

july 18-afs7t

From the Albany Argus.

The Geological Survey of the State.

It will be generally recollected that the legislature at the last session made provision for a geological survey of this state, including an account of its botanical and zoological productions. This important measure was to be executed under the direction of the Governor, by competent persons to be appointed by him. The outlines of a plan for this work, together with the specification of the objects to be embraced in it, were submitted to the legislature in an able and excellent report, made to that body by Gen. Dix, as Secretary of State. This plan has, with some inconsiderable alterations, been adopted by the Governor. The state is divided into four districts, and one principal geologist and an assistant assigned to each, instead of two geologists, as suggested in the report made by Gen. Dix.

It was supposed that it would be necessary to have a draughtsman for each district, but it is believed that a change in this respect can be advantageously made. The geologist and his assistant will be able to execute all the ordinary drawings, and the services of only one draughtsman will be required to execute the more difficult parts of this branch of the work. An accurate, minute, and uniform analysis of the minerals, including mineral waters, and of the various soils of the state, has been deemed of great importance, and will be of evident utility. To ensure the best result in this respect and to prevent the repetition of the same labor to some extent at least by each geologist, this department of the work has been committed to one person. The Governor has, we believe, taken great pains to secure to the state the services of persons in all respects well qualified for the duties assigned them; and has almost completed the list of appointments.

John Torry, M. D. Professor of Chemistry and Botany in the College of Physicians and Surgeons, New York, &c. is appointed Botanist, and is to execute the botanical department of the survey.

Lewis C. Beck, Professor of Chemistry and Botany in the New York University, &c. is appointed Minerolagist and Chemist, and has charge of that branch of the work which relates to the chemical analysis of the minerals, soils, &c.

James E. De Kay, M. D. author of numerous papers on the Geology and Zoology of the United States, has charge of the Zoological Department.

William W. Mather, for several years Professor of Mineralogy and Geology in the Military Academy at West Point, is appointed principal geologist to execute the survey of the first district. His assistant has not yet been selected, The first district is composed of the following counties—Suffolk, Queens, Kings, Richmond. New York, Westchester, Rockland, Putnam, Dutchess, Orange, Sullivan, Delaware, Ulster, Greene, Columbia, Rensselaer, Albany, Schoharie, Schenectada, Saratoga and Washington.

Ebenezer Emmons, M. D., professor of natural history in Williams College, has been appointed principal geologist for the second district. James Hall, instructor in the Rensselaer School at Troy, is appointed the assistant. This district contains the counties of Warren, Essex, Clinton, Franklin, Hamilton, St. Lawrence and Jefferson.

Timothy A. Conrad, author of a work on the "Fossil shells of the Tertiary formations of the U. S.," Monograph of the American Uniodeæ, &c., is appointed principal geologist for the third district; and Geo. W. Boyd, M. D. curator of the N. Y. Lyceum of Natural History, is appointed his assistant. This district includes the counties of Montgomery, Herkimer, Oneida, Lewis, Oswego, Madison, Onondaga, Cayuga, Wayne, Ontario, Monroe, Orleans, Genesee and Livingston.

The fourth district includes the counties of Otsego, Chenango, Broome, Tioga, Cortland, Tompkins, Seneca, Yates, Steuben, Allegany, Cattaraugus, Chautauque, Erie and Niagara. Lardner Vanuxem, late professor of chemistry and mineralogy in Columbia College, South Carolina, has been appointed principal geologist for this district. The assistant has not yet been selected.

The following is a copy of a circular which the Governor has furnished to the persons employed in the survey:

Albany, 25th July, 1836.

Sir—I take the liberty to introduce to you one of the gentlemen employed in executing the geological survey of the state, directed by the legislature at the last session. The importance of this measure in respect to our general prosperity, and particularly to the interests of the people in those sections of the State which are supposed to contain mineral productions, or in which valuable discoveries may be made, will I trust, secure to them a favorable consideration in every place to which their duties may lead them. I confidently anticipate a readiness on the part of the inhabitants in every section of the State, to render to the persons engaged in this work, such assistance as will facilitate its execution.

The assistance which the geologists will be desirous of receiving, will, I presume, relate principally to information concerning localities which are interesting as connected with the objects of the survey—to the collection of specimens—and to the facilities which they may require in conducting the more difficult part of their researches. Those who are disposed to contribute in any manner to the accomplishment of this useful work, will no doubt be willing to confer with the public agents as to the manner in which they can best carry into effect their good intentions.

It may be that, in the course of their researches, these agents will wish to extend their examinations beyond the surface of the earth. This will in some instances at least require labor which it will not be in their power to perform. The legislature made no provision for an expenditure for such purposes, and unless those who may be immediately interested should be willing to bestow the labor required in such cases, the advantages that might result from such examinations cannot at present be attained.

A careful and complete geological survey of the State, including a minute and accurate analysis of its minerals and soils, together with an account of its botanical and zoological productions, such as was designed by the legislature, is an undertaking of much labor, and although executed in the most economical manner, will be attended with great expense; but both of these, however, will be considerably diminished, if the gentlemen engaged in carrying this measure into effect should receive, as I hope they will, the co-operation of public spirited individuals in various parts of the State.

Permit me to solicit from you such facilities in the prosecution of this undertaking, as you may find it convenient to grant to those who have been employed in executing it.

I have the honor to be, with great respect, your obedient servant, W. L. MARCY.

The article below from the Utica Observer on the arrival at that place of a train of Cars from Schenectada, is full of interest, as it develops the rapid extension of internal communication through our country; bringing places before considered remote, into speaking distance with each other. When the road shall have been completed from this city to Utica, the effect will be equal to diminishing the distance to New York nearly three fourths, or removing us so much nearer this great center of American commerce.

The completion of a continuous route of Rail Road from this city to Albany, will enable the man of business or pleasure to breakfast at his own table, dine in Albany, and breakfast in New York, having traversed in the mean time a distance of between three and four hundred miles. This, by the use of a pardonable hyperbole, is annihilating time and space.

Utica & Schenectada Rail Road.—*Arrival of the first train of cars in three hours and thirty minutes from Schenectada!*—This road will be in full operation in a few days. A locomotive left Schenectada yesterday morning at a quarter past 6 o'clock, with a baggage car and two passengers cars attached, and arrived in this city, distance 80 miles, in the short period of three hours and thirty minutes! deducting about 50 minutes stoppage on the route. The same train left in the afternoon on its return. The directors have not yet decided on what day the regular trips shall be commenced, but it is understood that it will be either Monday or Tuesday next. When this event takes place passengers can leave this city in the morning train and reach Albany *in time for breaktfast!* It is understood that three trains each day will pass up and down between Schenectada and this city. All the Stages now running between this city and Schenectada, we understand, are to be drawn off, with the exception of those necessary to transport the mail, which we are informed is to be so transported until the expiration of the present contract in October!

The advantages secured to Utica by the opening of this road seem to invite from our citizens some public expression of the gratification which is so generally felt. Should not our citizens prepare for a celebration of some sort, to take place within a few days after the opening of the road, or upon the same day, if the directors designate the time in season?—*Utica Obser.*

New-York Market—July 29. Flour, Western $7,18 common brands. Ashes $5,75 and $7,75.

ELECTION NOTICE.—*Sheriff's Office, Monroe County, Rochester, July* 23, 1836.—A general election is to be held in the county of Monroe, on the 7th, 8th and 9th days of November next, at which will be chosen the officers mentioned in the notice from the Secretary of State, of which a copy is annexed. ELIAS POND, Sheriff.

State of New-York, Secretary's Office, Albany, July 15, 1836.

Sir—I hereby give you notice that at the next general election of this state, to be held on the 7th 8th and 9th days of November next, a Governor and Lieutenant Governor are to be elected.

I also give you notice that a Senator is to be chosen in the Eighth Senate District in the place of John Griffin, whose term of office will expire on the last day of December next.

JOHN A. DIX, Secretary of State.

To the Sheriff of the county of Monroe.

N. B.—The Inspectors of Election in the several towns in your county will give notice of the election of a Representative to Congress from the 28th Congressional District, and that 42 Electors of President and Vice President are also to be chosen at the general election aforesaid. They will also give notice of the election of Members of Assembly, and for filling any vacancies in county offices which may exist. july26

Valuable Books for Farmers.

CHAPTAL'S Agricultural Chemistry, price $1.25
Comstock on Silk, price 37 1-2 cts.
Cobb do. do.
Nuttall's Ornithology of Land Birds, price $2,50.
do. do. Water Birds, price $2,50.
Hind, Mason, and American Farriers.
Bushby on the Vine, price 50 cts
Smith on the Honey Bee, price 37 1-2.
Fisher on the Vine, price 75 cts.
Also—Odd volumes of the Genesee Farmer.
For sale by HOYT & PORTER,
july 6 No. 6 State street.